

Application No. 10/002,620

Reply to Office Action

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1-3. (Canceled)

4. (Previously Presented) A fertilizer comprising a sparingly water-soluble phosphatic fertilizer and a urea/aliphatic aldehyde condensation product, wherein the sparingly water-soluble phosphatic fertilizer has elution characteristics where after 2 grams of the sparingly water-soluble phosphatic fertilizer is dipped in 150 milliliters of a 2 weight percent aqueous solution of citric acid at 30°C, the time required to allow elution of 80 weight percent of phosphate components contained in the phosphatic fertilizer into the aqueous solution of citric acid ranges from 0.1 to 2000 minutes and the ratio of the sparingly water-soluble phosphatic fertilizer in conversion to P_2O_5 to the urea/aliphatic aldehyde condensation product ranges from 0.01 to 5 weight percent.

5. (Previously Presented) The fertilizer as described in claim 4, wherein the urea/aliphatic aldehyde condensation product comprises 2-oxo-4-methyl-6-ureidohexahydropyrimidine or formaldehyde-condensed urea.

6. (Currently Amended) The fertilizer as described in claim 4 wherein if a water-soluble phosphoric acid is present in the fertilizer, the ratio of ~~a~~ of the water-soluble phosphoric acid in conversion to P_2O_5 ~~contained~~ to the urea/aliphatic aldehyde condensation product is 0.5 weight percent or less.

7. (Previously Presented) The fertilizer as described in claim 4, wherein the fertilizer comprises a particulate form.

8. (Original) The fertilizer as described in claim 7 wherein the particle size ranges from 1 to 50 millimeters.

9. (Previously Presented) The fertilizer as described in claim 7 further comprising a water-repellent substance mixed with the sparingly water-soluble phosphatic fertilizer and urea/aliphatic aldehyde condensation product.

Application No. 10/002,620

Reply to Office Action

10. (Original) The fertilizer as described in claim 9 wherein the water-repellent substance has a melting point falling in the range of from 60 to 130°C.
11. (Previously Presented) The fertilizer as described in claim 9 wherein the water-repellent substance comprises one or more of natural wax and synthetic wax.
12. (Previously Presented) The fertilizer as described in claim 11 wherein the natural wax comprises one or more of hardened castor oil and derivatives thereof.
13. (Original) The fertilizer as described in claim 9 wherein the ratio of the water-repellent substance to the total amount of the sparingly water-soluble phosphatic fertilizer, the water-repellent substance, and the urea/aliphatic aldehyde condensation product ranges from 0.1 to 20 weight percent.
14. (Previously Presented) A process for producing a fertilizer comprising a sparingly-water soluble phosphatic fertilizer, a urea/aliphatic condensation product, and a water-repellent substance, wherein the fertilizer is in particulate form, the process comprising particles granulation by use of the water-repellent substance, the sparingly water-soluble phosphatic fertilizer, the urea/aliphatic aldehyde condensation product, and water as raw materials and a step of drying the particles by use of a gas held at a temperature not lower than a melting point of the water-repellent substance and not higher than 500°C.
15. (Original) The process as described in claim 14 wherein the temperature of the raw materials in the step of granulation is a temperature from 0 to 40°C lower than the melting point of the water-repellent substance.
16. (Original) The process as described in claim 14 wherein the granulation of the particles in the step of granulation is carried out by use of a stirring-type mixing granulator.
17. (Previously Presented) The process as described in claim 14 wherein the water-repellent substance comprises a particulate.
18. (Original) The process as described in claim 17 wherein the particle size of the

Application No. 10/002,620

Reply to Office Action

particulate water-repellent substance ranges from 0.005 to 1 millimeter.

19. (Original) The process as described in claim 14 wherein the ratio of water ranges from 5 to 30 weight percent to the total amount of the water-repellent substance, the sparingly water-soluble phosphatic fertilizer, and the urea/aliphatic aldehyde condensation product.

20. (Previously Presented) A process for controlling an inorganizing speed of a urea/aliphatic aldehyde condensation product comprising adding to the urea/aliphatic aldehyde condensation product a sparingly water-soluble phosphatic fertilizer having elution characteristics where after 2 grams of the sparingly water-soluble phosphatic fertilizer is dipped in 150 milliliters of a 2 weight percent aqueous solution of citric acid at 30°C, the time required to allow elution of 80 weight percent of phosphate components contained in the phosphatic fertilizer into the aqueous solution of citric acid ranges from 0.1 to 2000 minutes, wherein the ratio of the added sparingly water-soluble phosphatic fertilizer in conversion to P_2O_5 to the urea/aliphatic aldehyde condensation product ranges from 0.01 to 5 weight percent.

21. (Canceled).

22. (Previously Presented) The process as described in claim 20 wherein the urea/aliphatic aldehyde condensation product comprises 2-oxo-4-methyl-6-ureidohexahydropyrimidine or formaldehyde-condensed urea.

23. (Previously Presented) The process as described in claim 20 further comprising mixing a water-repellent substance with the urea/aliphatic aldehyde condensation product.

24. (Original) The process as described in claim 23 wherein the water-repellent substance has a melting point falling in the range of from 60 to 130°C.

25. (Previously Presented) The process as described in claim 23 wherein the water-repellent substance comprises one or more of natural wax and synthetic wax.

26. (Previously Presented) The process as described in claim 25 wherein the natural wax comprises one or more of hardened castor oil and derivatives thereof.

Application No. 10/002,620

Reply to Office Action

27. (Original) The process as described in claim 23 wherein the ratio of the water-repellent substance to the total amount of the sparingly water-soluble phosphatic fertilizer, the water-repellent substance, and the urea/aliphatic aldehyde condensation product ranges from 0.1 to 20 weight percent.

28. (Canceled)

29. (Currently Amended) A process for growing crops comprising administering to the crop the fertilizer of ~~characterized by using the fertilizer as described in claim 4.~~

30. (Canceled)

31. (Currently Amended) A process for growing crops comprising administering to the crop the fertilizer of ~~characterized by using the fertilizer as described in claim 5.~~

32. (Currently Amended) A process for growing crops comprising administering to the crop the fertilizer of ~~characterized by using the fertilizer as described in claim 7.~~

33. (New) A composition comprising a urea/aliphatic aldehyde condensation product, a sparingly water-soluble phosphatic fertilizer, and a water-repellent substance, wherein the sparingly water-soluble phosphatic fertilizer has elution characteristics where after the sparingly water-soluble phosphatic fertilizer is dipped in 2 weight percent aqueous solution of citric acid at 30 °C in the weight ratio as shown in the following equation:

Equation: (Sparingly Water-Soluble Phosphatic Fertilizer)/(2 Weight Percent Aqueous Solution of Citric Acid) (in Weight Ratio) = 0.013,

the time required to allow elution of 80 weight percent of phosphate components contained in the phosphatic fertilizer into the aqueous solution of citric acid ranges from 0.1 to 2000 minutes.

34. (New) A process for growing crops comprising applying to the crops the composition of claim 33.